Assignment-2

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1. Creation of a Socket

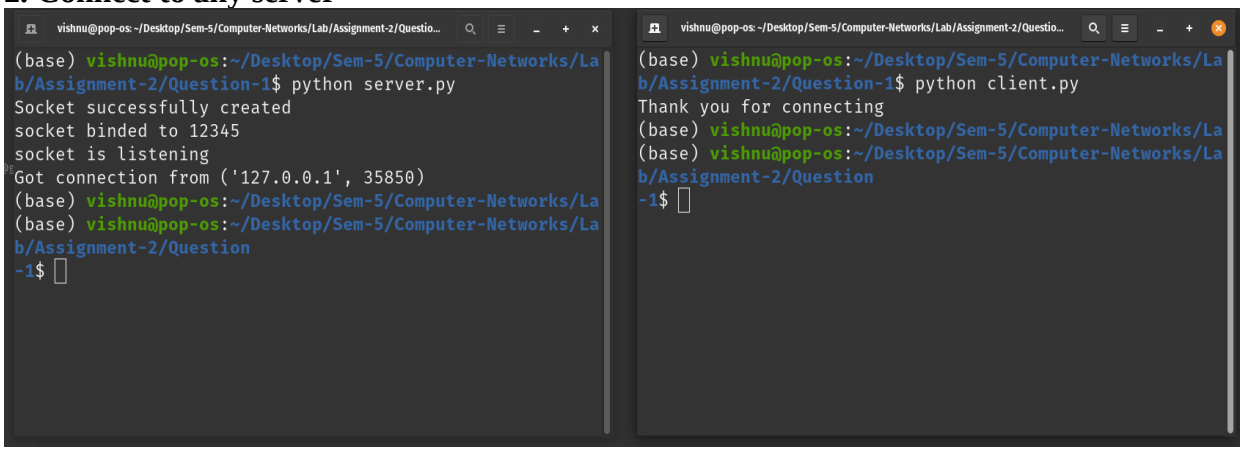
The Server code is as follows:

```
import socket

s = socket.socket()
print("Socket successfully created")

port = 12345

s.bind(('', port))
print("socket binded to %s" % (port))

s.listen(5)
print("socket is listening")

while True:
    c, addr = s.accept()
    print('Got connection from', addr)

    c.send("Thank you for connecting to Vishnu's PC".encode())

    c.close()

    break
```

The client code is as follows:

```
import socket

s = socket.socket()

port = 12345

s.connect(('127.0.0.1', port))

print(s.recv(1024).decode())
s.close()
```

2. Connect to any server



3. Try to change port number

```python
import socket

s = socket.socket()
print("Socket successfully created")

port = 12345

s.bind(('', port))
print("socket binded to %s" % (port))

s.listen(5)
print("socket is listening")

while True:
    c, addr = s.accept()
    print('Got connection from', addr)

    c.send('Thank you for connecting'.encode())

    c.close()

    break
```

```python
import socket

s = socket.socket()

port = 1234

s.connect(('127.0.0.1', port))

print(s.recv(1024).decode())
s.close()
```

```
Traceback (most recent call last):
  File "/home/vishnu/Desktop/Sem-5/Computer-Networks/Lab/Assignment-2/Question-1/client.py", line 7, in <module>
    s.connect(('127.0.0.1', port))
ConnectionRefusedError: [Errno 111] Connection refused

Process finished with exit code 1
```

Since the port of the server and the port of the client is different,the connection cannot be established as client tries to connect to a port where there is nothing and server keeps waiting.

4. Try to Connect one computer to another computer

Code:-

server.py

```python
import socket

s = socket.socket()
print("Socket successfully created")

port = 12345

s.bind(('', port))
print("socket binded to %s" % (port))

s.listen(5)
print("socket is listening")

while True:
    c, addr = s.accept()
    print('Got connection from', addr)

    c.send("Thank you for connecting to Vishnu's PC".encode())

    c.close()

    break
```

```python
import socket

s = socket.socket()

port = 12345

s.connect(('172.16.19.24', port))

print(s.recv(1024).decode())
s.close()
```

Me as a server:-

```
(base) vishnu@pop-os:~/Desktop/Sem-5/Computer-Networks/Lab/Assignment-2/Question-2$ python server.py
Socket successfully created
socket binded to 12345
socket is listening
Got connection from ('172.16.19.24', 57072)
```

In [7]:
```python
# Import socket module
import socket

s = socket.socket()
port = 12345
s.connect(('172.16.19.41', port))
print (s.recv(1024).decode())
s.close()
```

```
Thank you for connecting to Vishnu's PC
```

Me as a client:-

In [5]:
```python
# first of all import the socket library
import socket

# next create a socket object
s = socket.socket()
print ("Socket successfully created")
port = 12345


s.bind(('', port))
print ("socket binded to %s" %(port))
s.listen(5)
print ("socket is listening")

while True:
    c, addr = s.accept()
    print ('Got connection from', addr )

    c.send('Thank you for connecting ---Srinivas Pc'.encode())
    c.close()
    break
```

```
Socket successfully created
socket binded to 12345
socket is listening
Got connection from ('172.16.19.41', 59378)
```

```
(base) vishnu@pop-os:~/Desktop/Sem-5/Computer-Networks/Lab/Assignment-2/Question-2$ python client.py
Thank you for connecting ---Srinivas Pc
```